CONFIDENTIAL

1 March 2004

Hon Dr Michael Cullen
Minster of Finance
Parliament Buildings
WELLINGTON

Dear Dr Cullen

FOREIGN EXCHANGE INTERVENTION OPTIONS

This letter is in response to your request to be briefed on the merits of Crown foreign exchange intervention. This involves consideration of foreign exchange intervention goals in addition to the Reserve Bank's current objective of restoring foreign exchange market functionality if necessary. I think there are merits in adjusting the Bank's financial position to allow for such additional intervention, so as to provide for an additional policy instrument that could assist me in meeting my Policy Targets Agreement obligations. The key issues are addressed in this letter.

This letter should be considered in conjunction with my letter to you dated February 9th 2004, and the subsequent briefing you received from the Bank on February the 12th 2004. In those communications I recommended an increase in the level of foreign reserves held in order to be prepared to meet the current foreign exchange intervention objective. With the current objective, absent a crisis, foreign reserves assets are matched with foreign currency liabilities, leaving the Bank's and Crown's foreign currency position hedged. A change in objective would involve consideration of directly buying or selling New Zealand dollars in exchange for foreign currency, unhedged. In order to provide room for unhedged positions to be taken while still leaving the appropriate amount of foreign assets available for crisis intervention, on average additional reserves would be required. In order to absorb the, ultimately temporary, gains and losses associated with unhedged positions, the Bank would require an additional capital injection.

Thus this letter, and accompanying papers, do not alter my previous recommendations, but extend the discussion into consideration of unhedged positions, and additional reserves on average.

In order to brief you on the relative pros and cons of alternative foreign exchange intervention objectives and approaches, I provide in the accompanying paper:

- a brief overview of the net economic benefits of reduced cyclical exchange rate variability, and an assessment of the effectiveness of Crown foreign exchange intervention in reducing exchange rate variability;

- an assessment of the risks that would need to be managed if the Bank's current objective of foreign exchange intervention was widened to include reducing cyclical exchange rate variability;

- an outline of a foreign exchange intervention framework that we believe would best achieve the objective of reducing cyclical exchange rate variability while managing the relevant risks; and finally

- an overview of the financial and reporting implications for the Bank and the Crown of undertaking foreign exchange intervention.

In this letter I précis the attached analysis, and provide recommendations. I have consulted extensively with the Treasury, who provide accompanying analysis.

Overview of net economic benefits of reduced cyclical exchange rate variability

At the outset, it should be noted that our analysis and consideration of policy options is concentrated on *cyclical* exchange rate variations. By this I mean the three to five year swings from peak to trough in the exchange rate. I have evaluated other exchange rate intervention objectives, and other countries' experiences with intervention in relation to those objectives, but do not see merit in pursuing those alternatives further.

The New Zealand exchange rate is not unusual amongst floating exchange rates in experiencing substantial cyclical variation. As with other floating exchange rates, at its extremes, the exchange rate cycle is in excess of the variation that we would consider consistent with macroeconomic fundamentals. This judgement – that exchange rate cycles can and do exceed those consistent with fundamentals – is now the majority opinion amongst economic experts, and within the central banking community. By how much exchange rate cycles exceed fundamentals, and how readily one can identify those situations in real-time, remain in dispute.

My assessment of the research and evidence is that "excessive" exchange rate swings are welfare-reducing, even after allowance for hedging and compensating factors. My reading of the evidence on exchange rate intervention aimed at dampening exchange rate cycles is that such intervention can be – and on average is – successful, but that the effect is almost always small.

Drawing these together, my reading of the net benefits of such intervention, even after allowance for the risks associated with the policy, is that there is *likely to be a net benefit from intervention aimed at dampening the cycle*, albeit most probably a small one. That exchange rate intervention has only a small impact on cyclical exchange rate variability can be seen from the fact that the typical exchange rate cycles of countries that intervene actively are not significantly distinguishable from the typical exchange rate cycles of countries that do not.

The risks that need to be managed

For foreign exchange intervention to be welfare-enhancing, several conditions have to be satisfied. These include the:

- exchange rate has varied in excess of its relevant economic fundamentals;
- 'intervening agent' has been able to identify this excess variability at the time;
- intervention has a lasting impact on the level of the exchange rate;
- gains from that impact are not offset by conflict with other policies, by shifting exchange rate variability elsewhere in the economy where it may be more difficult to adjust, or by inducing poor decision-making by businesses and households; And
- gains from that impact are in excess of the costs of funding the intervention.

While on balance I believe that these conditions can probably be satisfied with appropriately designed policy arrangements, uncertainty around satisfaction of each of these conditions creates risks. The attached paper discusses these risks more fully.

Identifying when the exchange rate cycle has moved beyond its relevant economic fundamentals is unfortunately difficult. Intervening against the economic fundamentals may prove both ineffective and costly (in economic and financial terms). This reinforces the case for the *objective* of exchange rate intervention policy being to aim to dampen the extreme peaks and troughs of an exchange rate cycle.

As to whether the impact of intervention on the level of the exchange rate has a lasting effect or not, the evidence is weak (even at the extremes of the exchange rate cycle). There is fairly clear evidence that an immediate effect can be achieved. But my assessment is that the effect of intervention can only persist when the exchange rate is driven by non-fundamental market dynamics.

A lack of clear evidence of a persistent effect of foreign exchange intervention on the level of the exchange rate arises from the typically small magnitude of such effects, and the fact that many other factors are also influencing the exchange rate. Thus the longer-term effect of intervention is more likely disguised in empirical estimates, rather than overwhelmed. Again, the evidence points towards intervening only at extreme peaks and troughs, when the presence of non-fundamental market dynamics dominates.

Conflict with other policy objectives, such as the price stability objective, could arise where interest rate decisions and inflation outcomes were allowed to become subservient to the attempt to dampen the exchange rate cycle. Such a conflict would involve attempting to work against fundamental economic drivers of the exchange rate, and would raise the risk that the economic (and financial) risks of intervention would outweigh the gains. Such a conflict would be less likely to arise if interventions were restricted to the extremes of the exchange rate cycle. It would also be less likely to arise if interventions were managed within a framework that is consistent with the Policy

Targets Agreement's requirement to pursue exchange rate stability *while maintaining price stability.*

As to the risk of inducing additional variability elsewhere (e.g. in interest rates and asset markets), or poor decision-making elsewhere (e.g. by trading companies presuming a degree of protection from exchange rate variation that cannot be delivered), these concerns would be most prevalent if intervention were not restricted to the extremes of the cycle.

Nonetheless, even if intervention activity is limited to the extremes of the cycle and managed within a framework consistent with the PTA, the gains from exchange rate intervention would still be difficult to demonstrate in the absence of counterfactual information. This leaves to the risk of damage to the Bank's, and hence monetary policy's, credibility and reputation. Such an exposure is probably manageable, but that outcome cannot be assured.

Finally, in relation to the financial costs of intervention and the associated risks, my analysis suggests that the long-term cost is likely to be negative (i.e. a net gain). The intervention approach we discuss involves aiming to buy foreign dollars (sell NZ dollars) when the NZ dollar exchange rate is at or near its cyclical high, and aiming to sell foreign dollars (buy NZ dollars) when the NZ dollar is near its cyclical trough. This buy low/sell high strategy would be profitable over the medium-term so long as interventions are kept to extremes (viewed in retrospect as well as in prospect); so long as the exchange rate continued broadly to follow its normal cyclical pattern (which is not certain); and so long as the Bank was not forced to abandon its position prematurely.

That an intervention-at-extremes policy would be expected to be profitable, and conducted in a way that leaves no net foreign exchange exposure for the Crown over time, does not mean that the policy would have no financial risk attached. Even with intervention successfully kept to extremes, unrealised losses could become substantial [ ] and sustained over a considerable period (several months and possibly years). Those unrealised losses should be offset by subsequent gains if the exchange rate cycle continued broadly to follow normal patterns and the policy approach was not abandoned before that point. Again, this assessment of risks points to the desirability of limiting intervention to the outer extremes. In addition, it points to the desirability of a durable policy framework that includes cross-party political support, to limit the prospect of abandonment.

Perceptions that foreign exchange intervention could be abandoned would not only raise the financial risks, but it would create other significant problems that would come with a perceived lack of long term commitment. First, the prospects of abandonment could well attract speculators keen to profit from abandonment. Such outcomes have been observed many times abroad, and would clearly limit or potentially reverse the anticipated net benefits of the policy. Second, such uncertainty could well undermine the credibility of associated policies, such as monetary and prudential policy.

Widespread support for a policy change, where decision-making is embedded within an institutional structure that is robust, is the most effective guard that we can identify against these risks.

An intervention framework (including assessment of financial implications)

Five key criteria for the design of an effective intervention framework emerge from the foregoing discussion:

1 Decision-making arrangements should ensure *consistency with the PTA.* Such arrangements would be focussed on the use of a new instrument to assist monetary policy to meet its PTA objectives, rather than a new policy that is independent of, and potentially inconsistent with, monetary policy arrangements.

2 The structure should feature *operational independence* from political processes and other economic objectives that may be more short-term, in order to reduce uncertainty. This need for operational independence is similar to many investment structures and policies in both public and private sector e.g., monetary policy decision making, the Government Super Fund, or a private sector pension fund's investment committee.

3 *Sufficient financial resources* should be in place that the policy can sustain potentially large and long-lasting, but ultimately reversed, unrealised exchange rate losses without premature abandonment being forced.

4 *Incentives should push in the direction of intervention only at extremes*, where exchange rates are clearly no longer consistent with fundamental economic determinants, and where the non-fundamental market determinants are well enough understood that there is a prospect of successful lasting impact on the exchange rate.

5 The arrangements should *maximise the prospect of multi-party support* for, and hence the long-term sustainability, of the policy.

I believe that these criteria point towards a framework with the following features:

1 Any new exchange rate intervention policy should be implemented by the Reserve Bank, under S.16 of the Bank's Act.

S.16 is the provision most consistent with an intervention policy that co-exists well with the PTA's objectives, and the Bank's financial stability objectives. S.16 is essentially a "business as normal" provision, in so far as that business is compatible with the Bank's range of policy obligations. In my view, the availability of an additional instrument that might allow us to influence the balance between interest rates and the exchange rate while still maintaining price stability would be fully compatible with the Bank's policy obligations. Indeed, I would welcome the availability of such an instrument, even acknowledging its likely limited effect.

The alternative provision available, S.17, involves ministerial direction, and is designed more to fit with circumstances in which exchange rate intervention could conflict with other objectives. It might be possible to construct a standing directive under S.17 that minimises the potential for conflict, and maximises operational independence. On balance, however, I believe that operating under S.16 is more naturally consistent with the PTA, and more likely to be sustainable.

The identification of the Bank as the intervention agency, rather than say the Debt Management Office of the Treasury, relates both to the desirability of maximising actual and perceived consistency with the PTA, and to the importance of being able to assess accurately the specific dynamics operating in the foreign exchange market at any point in time.

2 An additional capital injection to the Bank, backed by formal guarantees if necessary, to provide an undoubted financial capacity to undertake the intervention.

The scale of the required capacity depends on the scale of the likely intervention – i.e. the maximum scale of the net open foreign exchange position that would arise from intervention. My initial thinking is that a maximum net open position of around [ ] would be appropriate. I reach this estimate based on the Reserve Bank of Australia's experience as a yardstick, given that the possible intervention approach that we are focussing on is similar in spirit to that operated by the RBA. That implies the need for [ ] additional gross foreign exchange reserves over and above the $1.9 billion recommended in our letter of February 9th (though the run up would probably be able to be phased). I also estimate, at this stage, that a capital injection to the Bank of between approximately $600 million to $1 billion would be necessary.

The requirement for additional financial resources to be made available to the Bank follows from the use of S.16 as the enabling provision. Foreign exchange gains and losses arising from transactions under S.16 fall initially to the Bank, and only subsequently to the Crown through dividend disbursements and changes in the value of the Crown's "investment" in the Bank. The use of S.17 would, in contrast, involve gains and losses flowing almost immediately to the Crown under S.21 of the Bank's Act.

In addition, because under S.16 the initial impact is on the Bank's financial position, the Funding Agreement would have to be renegotiated. That would substantially slow down the implementation of a new policy approach. On the other hand, because Parliament needs to ratify each Funding Agreement, the requirement to alter the Funding Agreement would be compatible with concern for bi-partisan backing for a policy change. Note also, we are seeking legal advice to confirm whether the Funding Agreement needs to be varied in circumstances where a directive is given under S.17. The issue here is whether foreign exchange gains and losses under S.21 would trigger the need for a Funding Agreement renegotiation. The Bank and Treasury have always believed that this would not be the case, but we would want to take legal advice on this to be sure.

3 A memorandum of understanding between the Governor and the Minister, setting out the agreed basis on which the new policy would operate under S.16.

Although an MOU is not required by S.16, we believe it is advisable on the grounds that this would be a substantial policy change around which there are policy risks, the potential to attract destabilising speculation, and the potential for adverse publicity. Such a change should therefore be buttressed by a clear, publicly-available understanding on the part of all parties that the new policy approach is designed to be consistent with, and not contradictory to, monetary policy.

An MOU would therefore:
(a) seek direct consistency with the PTA;
(b) parallel the PTA in broad approach, with a focus on the objective of dampening cyclical exchange rate variability;
(c) enunciate an agreement that in practice the objective means intervening only at extremes;
(d) leave the Bank with independence on operational matters; and
(e) provide for agreed arrangements for reporting, accountability, and disclosure.

A draft Memorandum of Understanding is attached in Appendix I of this letter.

It should be noted that were S.17 to be used as the enabling provision for exchange rate intervention, a standing directive from yourself to the Governor would be required. That directive would have similar characteristics to an MOU under S.16, but may require additional work to maximise compatibility with the PTA and to buttress operational independence.

Reporting and disclosure

The Bank provides details of the structure and currency composition of its assets and liabilities to Treasury at the end of each month. These details are included in the Crown's consolidated financial statements which are published monthly. We also publish a separate data set on the level of our foreign reserves in accordance with the IMF's Special Data Dissemination Standard (SDDS). There are therefore two separate public data sources available on our level of foreign reserves, and information is available in the Crown financial statements on open FX positions and the consequence of those positions for profit and loss (realised and unrealised). Changes in financial positions arising from intervention will therefore appear in the public domain within a few days of month end.

Such arrangements are fully consistent with the now long-standing tradition of considerable transparency of public policy. But there are awkward features of complete transparency in the context of foreign exchange market intervention. In particular, if the market is aware of the limits of the central bank's intervention reserves and where the Bank is relative to this limit, the effectiveness of the intervention policy might be reduced. It is also possible that undesirable exchange rate speculation is attracted.

This tension points to a preference for not extending disclosure beyond that currently required by standard practice, and keeping private any net open foreign exchange position limits agreed within the context of an MOU or S.17 directive. Although we could be subject to Official Information Act enquiries as to the limit of our intervention capacity and where we are relative to this limit, I believe that the Bank could and should resist disclosure on grounds of protecting commercial interests and ensuring the effectiveness of our intervention policy. Even then I have doubts about such intervention limits remaining confidential. Hence I would suggest a contingent liability or 'fiscal risk' should be noted, but not quantified, in the Crown's balance sheet.

In terms of the effect on the Crown's financial statements of the acquisition of a new intervention capacity, and of any use of such a capacity, accompanying Treasury papers provide the relevant details. In short: gross debt would rise by the amount of additional reserves and any additional capital invested in the Bank would net-off on consolidation with the Crown.

Next steps

There are many dimensions to a robust framework for operating a foreign exchange intervention policy aimed at reducing cyclical exchange rate variability. I am confident that the analysis I provide in this letter identifies and assesses the key issues. However, there are aspects of some of these issues that I believe need further clarification. As such, I believe that further assessment should be undertaken before any decision is requested from you.

For example, the legal purpose for such an intervention strategy needs to be confirmed by the Bank's legal advisers. The optimal level of the capital injection needs to be refined, necessitating further empirical analysis. A revised Funding Agreement that is consistent with intervention under S.16 of the Reserve Bank Act 1989 needs to be formulated. And other communication and Bank operational capacity issues need to be considered.

Hence, while the Bank is fit for intervention purposes under its current policy objective, there are outstanding details that need to be finalised before our current intervention policy objective is augmented. I estimate it may take until around the end of March 2004 before I gain sufficient confidence that the optimal intervention technique, funding implications and options, and operating capacity could be presented to you, if you so requested, for your decision.

There are also other issues that I believe ideally need to be clarified or assessed as early as possible. These include, for example, timing issues with regard to the financing of foreign reserves that impact on the profile of gross public debt. Additional foreign reserves are necessary to intervene at both extremes of the exchange rate cycle. However, it is probable that all of these additional foreign reserves would not be needed immediately if the initial intervention occurs at the top end of the NZ dollar cycle. Such a timing and funding strategy, while consistent with the Bank's current intervention objective, exposes the Bank's balance sheet to foreign exchange risk. I would thus still request, irrelevant of funding strategy, your commitment to the overall intervention framework as described.

Another key feature of the intervention framework I have outlined is its durability through time. This has led me to prefer an intervention strategy supported by S.16 of the Reserve Bank Act 1989, with consequential funding agreement alterations, a capital injection, and a Memorandum of Understanding between the Governor and the Minister of Finance. In order to both ratify a new funding agreement and better ensure the durability of the intervention policy, I recommend you consider assessing the possibility of multi-party political support for this policy.

Recommendations to the Minister

I recommend that you:

1. Note the contents of this report.

2. Request the Reserve Bank to prepare by the end of March (or an alternative mutually agreed date) a draft Cabinet paper for your consideration, recommending:

(a) An increase in the level of the Reserve Bank's foreign currency assets by $1.9 billion for current intervention purposes.

(b) That the Bank's existing foreign exchange intervention capacity be augmented in a manner which would be consistent with the objective of reducing cyclical exchange rate variability.

Yours sincerely

Dr A E Bollard
Governor

Appendix I

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MEMORANDUM OF UNDERSTANDING BETWEEN THE MINISTER OF FINANCE AND THE GOVERNOR OF THE RBNZ

FOREIGN EXCHANGE MARKET INTERVENTION POLICY AND OPERATING GUIDELINES

This agreement between the Minister of Finance (the Minister) and the Governor of the Reserve Bank of New Zealand (the Bank) defines the foreign exchange market intervention policies and operating guidelines that the Bank shall operate under.

The proper purpose for foreign exchange intervention that underlies this agreement is provided for in the Reserve Bank of New Zealand Act 1989 (the Act), and is twofold:

- First, Section 7 requires the Bank to act as the central bank of New Zealand.

- Second, Section 8 requires the Bank to formulate and implement monetary policy as a primary function. Pursuant to this, Section 9 requires a policy targets agreement between the Minister and the Governor. In the policy targets agreement, Section 4.b states "In pursuing its price stability objective, the Bank shall implement monetary policy in a sustainable, consistent and transparent manner and shall seek to avoid unnecessary instability in output, interest rates and the exchange rate".

The Minister and the Governor agree as follows:

1. Objectives of foreign exchange market intervention policy

The two broad objectives of the Bank's intervention policy are:

a) *To seek to minimise the time and magnitude that the exchange rate departs from levels that appear consistent with its economic fundamentals.* The Bank would intervene at levels of the exchange rate that the Bank considers extreme i.e. when, we believe the exchange rate has reached levels that are inconsistent with the direction of economic fundamentals.

b) *To avoid dysfunction in the foreign exchange market.* In a situation where some extreme shock or event impacted the New Zealand foreign exchange market to the extent that liquidity was seriously eroded, and a dysfunctional market resulted, we would intervene to maintain liquidity, and to restrict extreme movements in exchange rates that flow from such liquidity problems. This situation is expected to arise only infrequently.

In operating intervention policy, the Bank seeks to maintain, on average, a net zero open foreign exchange exposure position. In practice, this means that from time to time there will be market transactions that rebalance our open foreign exchange exposure position.

2. Operating guidelines

This agreement confirms the guidelines the Bank will operate under, in discharging its obligations under the Act.

Under Section 16 of the Act the Bank has the authority to deal in foreign exchange for the "purposes of performing its functions and fulfilling its obligations under this Act or any other Act". Section 17 gives the Minister the power to direct the Bank to deal in foreign exchange. None of the following delegated authorities derogate from the Minister's powers under Section 17 of the Act.

2.1 Section 16 operating guidelines

a) In the normal course of events, the Bank will operate its intervention policy under Section 16 of the Act. The delegated authorities from the Minister to the Governor of the Bank allow the Bank to undertake intervention that seeks to limit the duration and extent of departures from levels of the exchange rate that appear consistent with fundamentals (objective 1.a above).

b) All intervention actions and judgements executed under Section 16 of the Act shall be consistent with the Bank's policy obligation of price stability, and our financial stability objectives.

c) The maximum and minimum limits on the net open foreign exchange exposure that the Bank is able to operate to under its delegated authority shall be determined under Section 39 (e) of the Act. These limits define the net foreign exchange exposure limit at the peak of our intervention cycle.

d) The Bank shall be adequately capitalised, and the level of capitalisation shall be consistent with the delegated authority on the net open foreign exchange exposure.

e) The Bank will seek to maintain a net zero foreign exchange exposure position, on average over time, and as such will periodically undertake foreign exchange transactions to rebalance the foreign exchange exposure position.

f) In addition, the Bank shall maintain a minimum target level of reserves of SDR 2.45 billion to intervene under intervention objective 1.b (above) at all times, unless directed otherwise by the Minister under Section 24 of the Act.

2.2 Section 17 operating guidelines

a) In unusual situations it will be desirable for the Minister to direct the Bank to intervene in the foreign exchange market, such as when there is a crisis, or when Bank balance sheet considerations require Ministerial decisions, or when foreign exchange intervention could conflict with our policy objectives.

b) On such occasions, the Minister should usually authorise direct intervention. However, there may be urgent situations that require rapid action before the Minister is able to be contacted. Consequently, the Bank has the authority to intervene in the foreign exchange market to meet the objectives of 1.b (above) up to a limit of SDR175 million (approximately USD260 million).

c) If the Bank is directed to intervene to avoid dysfunctional financial markets then the level of reserves held for this purpose will decline. Notwithstanding this situation, at all other times the Bank shall maintain a minimum target level of reserves of SDR 2.45 billion to intervene under intervention objective 1.b, unless directed otherwise by the Minister under Section 24 of the Act.

d) If the directions by the Minister call into question the ability of the Bank to achieve the policy targets or the objectives of monetary policy, then Section 19 and Section 20 of the Act provide mechanisms for resolution.

3. Reporting and accountability

3.1 Section 16 reporting and accountability

a) Gains and losses from foreign exchange intervention or transactions under Section 16 accrue to, or are borne by, the Bank.

b) The funding agreement shall be consistent with the delegated authorities under Section 16.

c) Intervention and transactions activity undertaken under Section 16 shall be reported under existing conventions.

d) The Bank shall be fully accountable for its judgements and actions in implementing intervention policy under Section 16.

3.1 *Section 17 reporting and accountability*

a) Gains and losses from foreign exchange intervention or transactions under Section 17 accrue to, or are borne by, the Crown.

b) The funding agreement shall be consistent with the delegated authorities under Section 17.

c) Intervention activity undertaken under Section 17 shall be reported under existing conventions and Section 21 of the Act.

d) The Bank shall be fully accountable for its advice and actions in implementing intervention policy under Section 17.

Hon Dr Michael Cullen Minister of Finance	Dr Alan Bollard Governor Reserve Bank of New Zealand

Dated …….. 2004